Title (en)

MACHINE LEARNING BASED SYSTEMS AND METHODS FOR CREATING PERSONALIZED ENDOVASCULAR STENTS AND STENT GRAFTS

Title (de)

AUF MASCHINENLERNEN BASIERTE SYSTEME UND VERFAHREN ZUR ERZEUGUNG VON PERSONALISIERTEN ENDOVASKULÄREN STENTS UND STENTIMPLANTATEN

Title (fr)

SYSTÈMES ET PROCÉDÉS BASÉS SUR L'APPRENTISSAGE MACHINE POUR CRÉER DES ENDOPROTHÈSES ENDOVASCULAIRES ET DES GREFFES D'ENDOPROTHÈSE PERSONNALISÉES

Publication

EP 4098219 A1 20221207 (EN)

Application

EP 21197353 A 20210917

Priority

US 202163196954 P 20210604

Abstract (en)

A method for creating a personalized stent or stent graft (10) for a blood vessel (20) with a saccular aneurysm (21), the method comprising: receiving (206) a 3D model of the blood vessel (20) with the saccular aneurysm (21); and generating (207) a model of a personalized stent or stent graft (10) that comprises a net (11) shaped to fit along internal walls of the blood vessel (20) and a covering (12) positioned with respect to the net (11) such as to cover an ostium of the aneurysm (21).

IPC 8 full level

A61B 34/10 (2016.01); **A61B 90/00** (2016.01); **A61F 2/86** (2013.01); **G06N 3/02** (2006.01)

CPC (source: EP US)

A61B 34/10 (2016.02 - EP US); **A61F 2/07** (2013.01 - EP US); **A61F 2/82** (2013.01 - EP); **G06T 7/0012** (2013.01 - US); A61B 2034/102 (2016.02 - EP); A61B 2034/105 (2016.02 - EP); A61B 2034/108 (2016.02 - US); A61B 2090/3966 (2016.02 - EP); A61F 2/86 (2013.01 - EP); A61F 2/915 (2013.01 - EP); A61F 2002/823 (2013.01 - EP); A61F 2240/002 (2013.01 - EP US); G06N 3/0464 (2023.01 - EP); G06N 5/04 (2013.01 - EP); G06N 20/00 (2018.12 - EP); G06T 2207/10081 (2013.01 - US)

Citation (search report)

- [XAYI] EP 2773287 A1 20140910 - QUARIUS LLC [US]
- [X] US 2014025151 A1 20140123 - GAO BULANG [US]
- [Y] US 2007293936 A1 20071220 - DOBAK JOHN D III [US]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4098219 A1 20221207; US 2022409360 A1 20221229; WO 2022256750 A1 20221208

DOCDB simple family (application)

EP 21197353 A 20210917; US 2022033769 W 20220616; US 202217841985 A 20220616